

AMENDMENTS

IN THE CLAIMS:

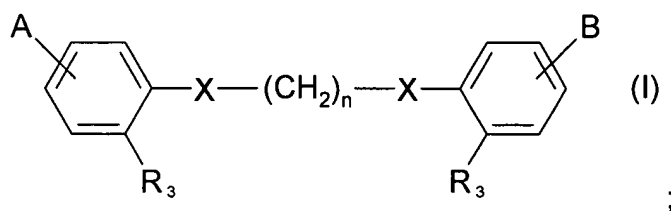
Please amend the claims as follows:

Please cancel Claims 1-16.

Please add new Claims 17-46 as follows:

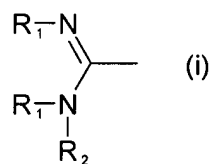
17. (new) A method for treating Alzheimer's disease in a subject in need of treatment thereof, the method comprising administering to the subject a therapeutic amount of an amidine compound, or a pharmaceutically acceptable salt thereof.

18. (new) The method of Claim 17, wherein the amidine comprises a compound of formula (I):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):



subject to the proviso that at least one of A and B is a compound of formula (i);

R₁ and R₂ are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl;

or two R₁ groups on the same compound of formula (i) together represent —(CH₂)_m— wherein m is 2, 3, or 4;

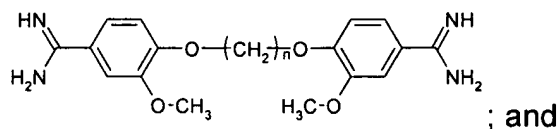
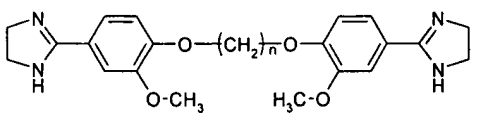
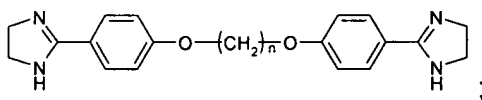
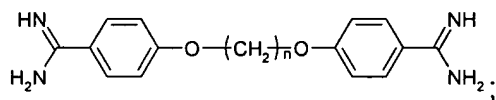
R₃ is H, loweralkyl, oxyalkyl, alkoxyalkyl, hydroxyalkyl, cycloalkyl, aryl, aminoalkyl, alkylaminoalkyl, or halogen;

n is an integer from 2 to 6; and

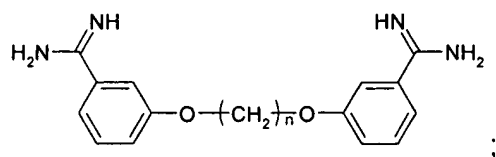
X is O, NH, or S;

or a pharmaceutically acceptable salt thereof.

19. (new) The method of Claim 18 wherein the amidine comprises a compound selected from the group consisting of:



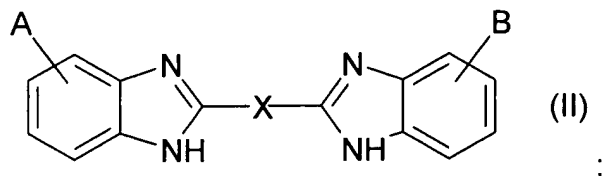
; and



wherein n is an integer from 2 to 6;

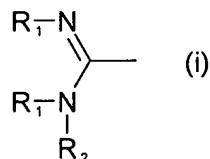
or a pharmaceutically acceptable salt thereof.

20. (new) The method of Claim 17, wherein the amidine comprises a compound of formula (II):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):

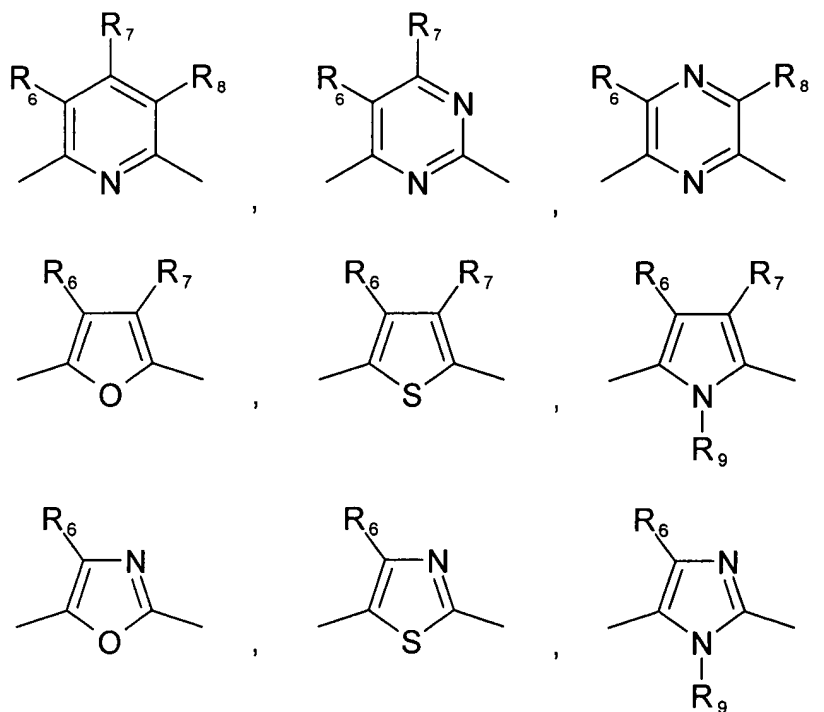


subject to the proviso that at least one of A and B is a compound of formula (i);

R₁ and R₂ are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl;

or two R₁ groups on the same compound of formula (i) together represent —(CH₂)_m— wherein m is 2, 3, or 4;

X is a linear or branched, saturated or unsaturated C₁-C₁₂ alkyl comprising up to 4 double bonds; or X is a heterocyclic aromatic group selected from the group consisting of:



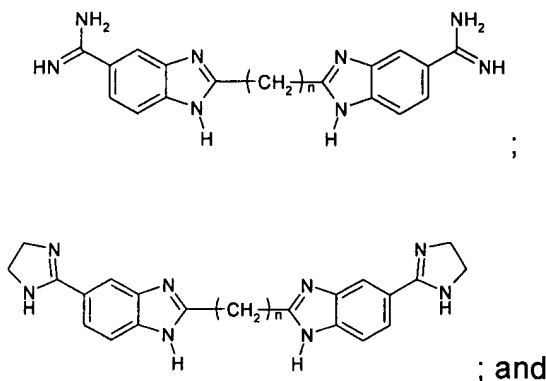
wherein

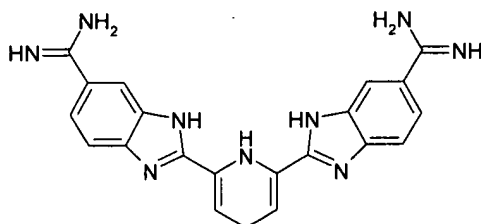
R_6 , R_7 , and R_8 are each independently selected from the group consisting of H, loweralkyl, halogen, oxyalkyl, oxyaryl, or oxyarylalkyl;

R_9 is hydrogen, loweralkyl, hydroxy, aminoalkyl, or alkylaminoalkyl;

or a pharmaceutically acceptable salt thereof.

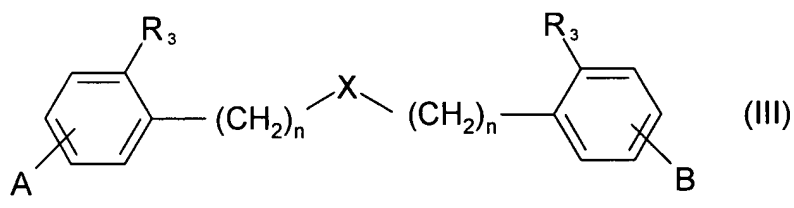
21. (new) The method of Claim 20, wherein the amidine comprises a compound selected from the group consisting of:





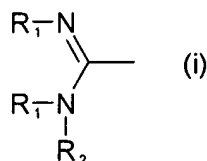
wherein n is an integer from 1 to 12;
or a pharmaceutically acceptable salt thereof.

22. (new) The method of Claim 17, wherein the amidine comprises a compound of formula (III):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):

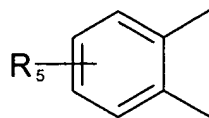


subject to the proviso that at least one of A and B is a compound of formula (i);

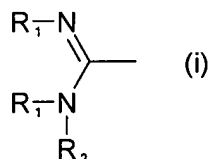
R₁ and R₂ are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl and alkylaminoalkyl;

or two R₁ groups on the same compound of formula (i) together represent $-(CH_2)_m-$ wherein m is 2, 3, or 4;

or two R₁ groups on the same compound of formula (i) together represent



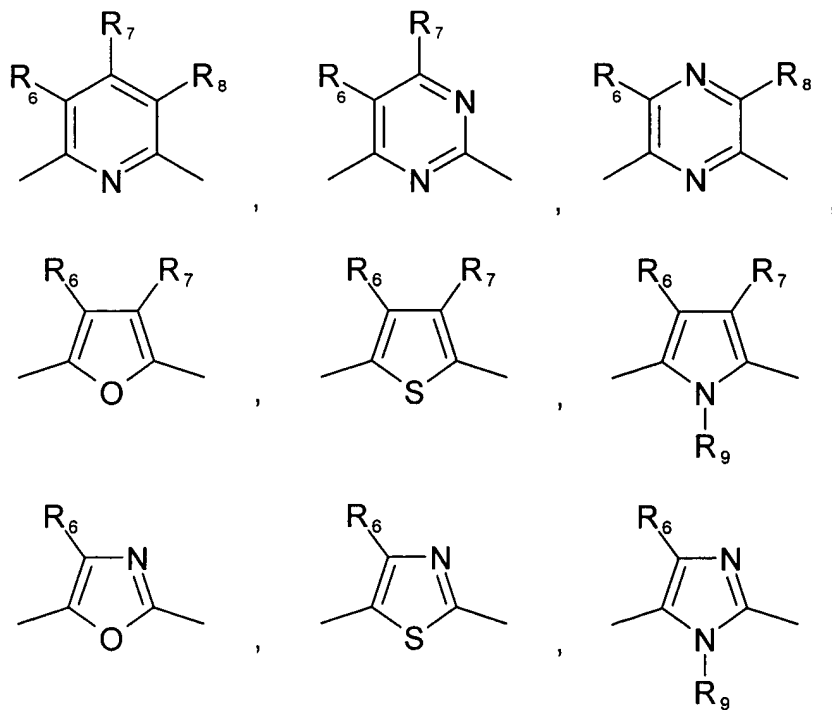
wherein R₅ is



R₃ is H, loweralkyl, oxyalkyl, alkoxyalkyl, hydroxyalkyl, cycloalkyl, aryl, aminoalkyl, alkylaminoalkyl, or halogen;

n is an integer from 0 to 2; and

X is CH₂O or a heterocyclic aromatic group selected from the group consisting of:

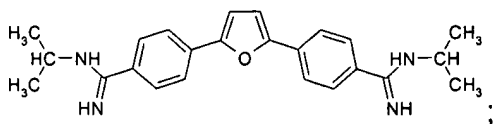
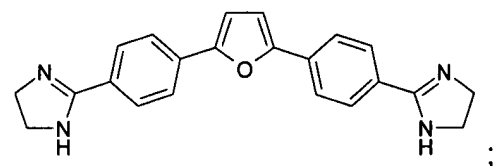
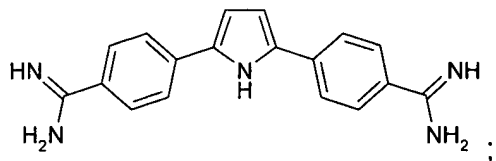
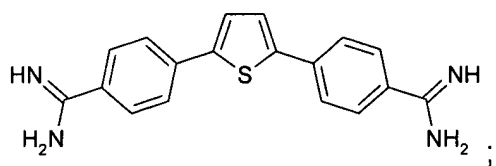
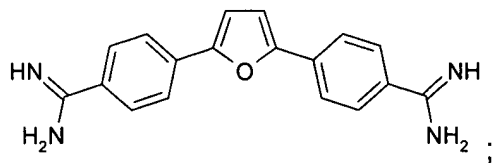


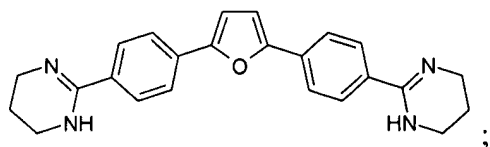
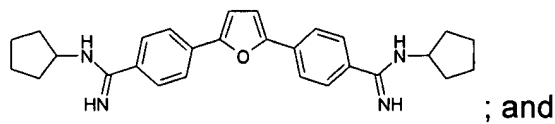
wherein:

R₆, R₇, and R₈ are each independently selected from the group consisting of H, loweralkyl, halogen, oxyalkyl, oxyaryl, or oxyarylalkyl;

R₉ is hydrogen, loweralkyl, hydroxy, aminoalkyl, or alkylaminoalkyl; or a pharmaceutically acceptable salt thereof.

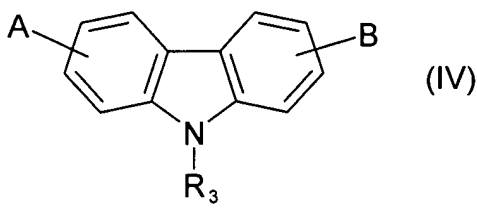
22. (new) The method of Claim 21 wherein the amidine comprises a compound selected from the group consisting of:





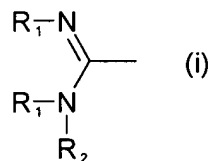
or a pharmaceutically acceptable salt thereof.

24. (new) The method of Claim 17, wherein the amidine comprises a compound of formula (IV):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):

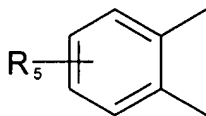


subject to the proviso that at least one of A and B is a compound of formula (i);

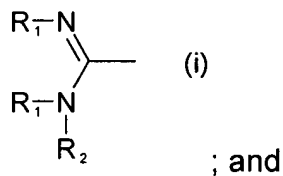
R₁ and R₂ are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl;

or two R₁ groups on the same compound of formula (i) together represent —(CH₂)_m— wherein m is 2, 3, or 4;

or two R_1 groups on the same compound of formula (i) together represent

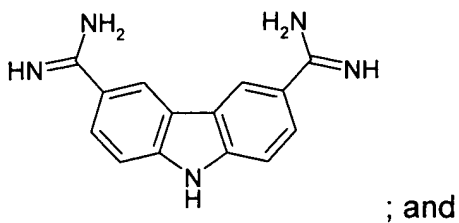


wherein R_5 is



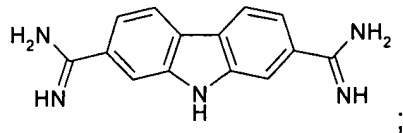
R_3 is H, loweralkyl, oxyalkyl, alkoxyalkyl, hydroxyalkyl, cycloalkyl, aryl, aminoalkyl, alkylaminoalkyl, or halogen;
or a pharmaceutically acceptable salt thereof.

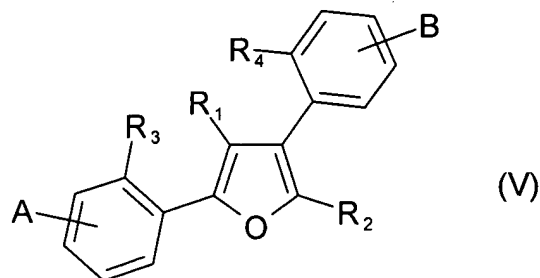
25. (new) The method of Claim 24 wherein the amidine comprises a compound selected from the group consisting of:



or a pharmaceutically acceptable salt thereof.

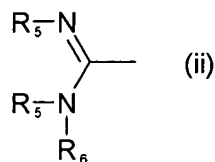
26. (new) The method of Claim 17, wherein the amidine comprises a compound of formula (V):





wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (ii):



subject to the proviso that at least one of A and B is a compound of formula (ii);

R₁ and R₂ are each independently selected from the group consisting of H, loweralkyl, aryl, alkylaryl, aminoaryl, halogen, oxyalkyl, oxyaryl, or oxyarylalkyl;

R₃ and R₄ are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkylaryl, aryl, oxyaryl, aminoalkyl, aminoaryl, or halogen;

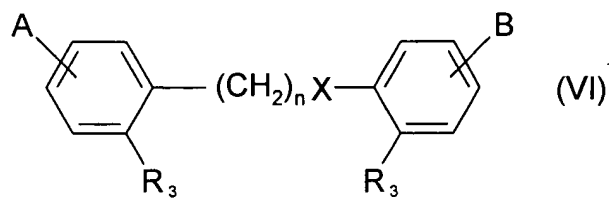
each R₅ is independently selected from the group consisting of H, loweralkyl, alkoxyalkyl, hydroxyalkyl, aminoalkyl, alkylaminoalkyl, cycloalkyl, aryl, or alkylaryl;

or two R₅ groups together represent C₂ to C₁₀ alkyl, hydroxyalkyl, or alkylene; and

R₆ is H, hydroxy, loweralkyl, alkoxyalkyl, hydroxyalkyl, aminoalkyl, alkylamino, alkylaminoalkyl, cycloalkyl, hydroxycycloalkyl, alkoxycycloalkyl, aryl, and alkylaryl;

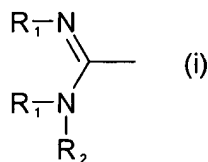
or a pharmaceutically acceptable salt thereof.

27. (new) The method of Claim 17, wherein the amidine comprises a compound of formula (VI):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):



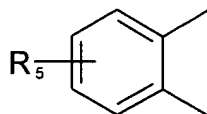
subject to the proviso that at least one of A and B is a compound of formula (i);

R₁ and R₂ are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl;

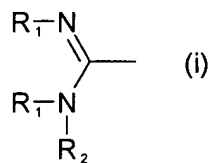
or two R₁ groups on the same compound of formula (i) together represent —(CH₂)_m— wherein m is 2, 3, or 4;

R₃ is H, loweralkyl, oxyalkyl, alkoxyalkyl, hydroxyalkyl, cycloalkyl, aryl, aminoalkyl, alkylaminoalkyl, or halogen;

or two R₁ groups on the same compound of formula (i) together represent



wherein R₅ is

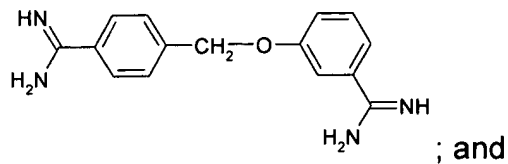
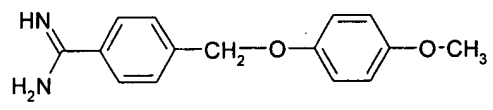
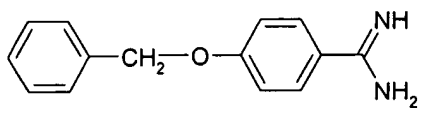
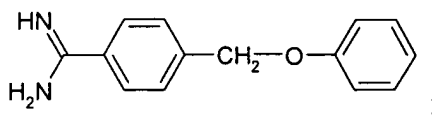
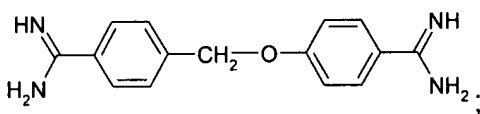


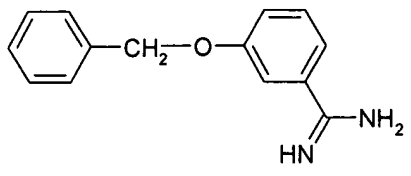
X is O, S, or NH;

n is an integer from 1 to 8;

or a pharmaceutically acceptable salt thereof.

28. (new) The method of Claim 27, wherein the amidine comprises a compound selected from the group consisting of:

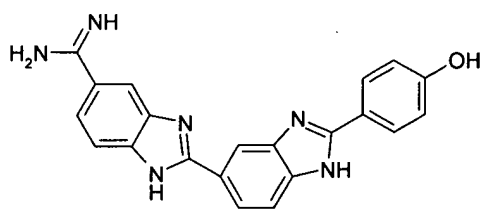




or a pharmaceutically acceptable salt thereof.

29. (new) The method of Claim 17 wherein the amidine comprises a bis-benzamidine.

30. (new) The method of Claim 17 wherein the amidine comprises a compound having the following structure:



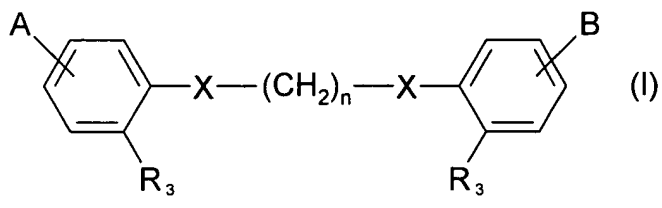
or a pharmaceutically acceptable salt thereof.

31. (new) The method of Claim 17, wherein the subject is afflicted with Alzheimer's disease.

32. (new) The method of Claim 17, wherein the subject is at risk of developing Alzheimer's disease, the treatment is a prophylactic treatment, and the amidine compound is administered in a prophylactically effective amount.

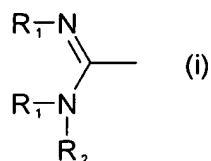
33. (new) A method for treating diabetes in a subject in need of treatment thereof, the method comprising administering to the subject a therapeutic amount of an amidine compound, or a pharmaceutically acceptable salt thereof.

34. (new) The method of Claim 33, wherein the amidine comprises a compound of formula (I):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):



subject to the proviso that at least one of A and B is a compound of formula (i);

R₁ and R₂ are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl;

or two R₁ groups on the same compound of formula (i) together represent —(CH₂)_m— wherein m is 2, 3, or 4;

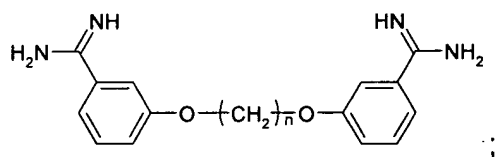
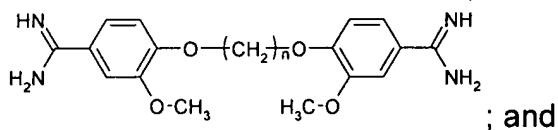
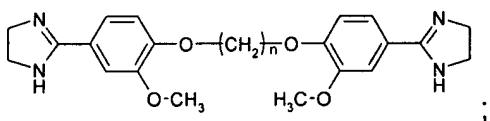
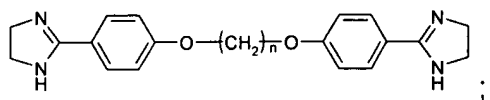
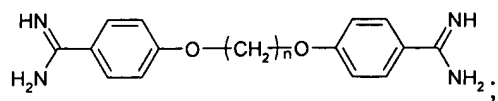
R₃ is H, loweralkyl, oxyalkyl, alkoxyalkyl, hydroxyalkyl, cycloalkyl, aryl, aminoalkyl, alkylaminoalkyl, or halogen;

n is an integer from 2 to 6; and

X is O, NH, or S;

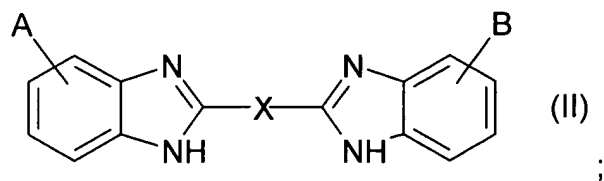
or a pharmaceutically acceptable salt thereof.

35. (new) The method of Claim 34 wherein the amidine comprises a compound selected from the group consisting of:



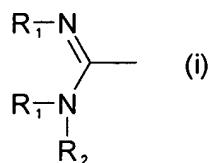
wherein n is an integer from 2 to 6;
or a pharmaceutically acceptable salt thereof.

36. (new) The method of Claim 33, wherein the amidine comprises a compound of formula (II):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):

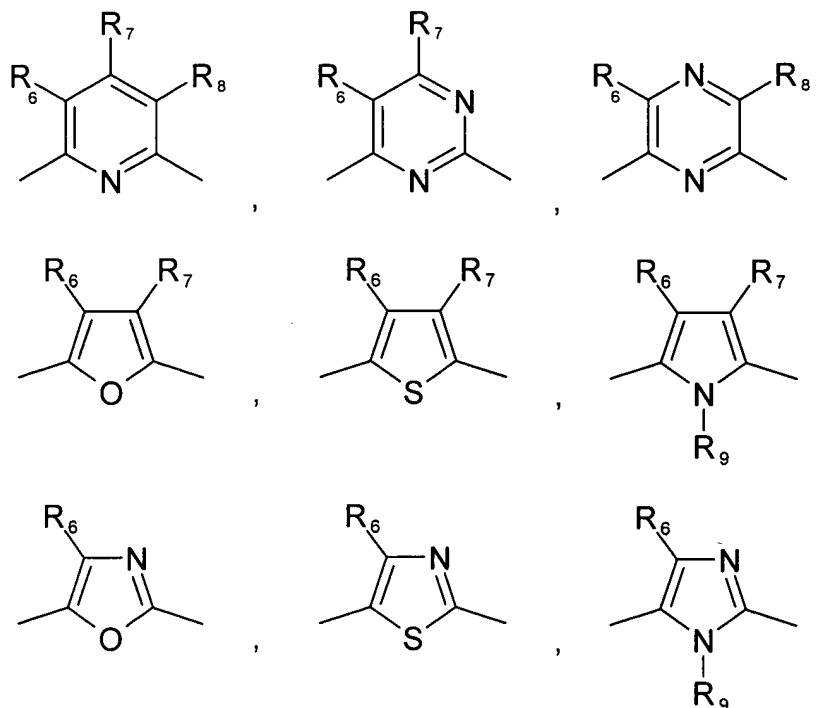


subject to the proviso that at least one of A and B is a compound of formula (i);

R_1 and R_2 are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl;

or two R_1 groups on the same compound of formula (i) together represent $-(CH_2)_m-$ wherein m is 2, 3, or 4;

X is a linear or branched, saturated or unsaturated C_1 - C_{12} alkyl comprising up to 4 double bonds; or X is a heterocyclic aromatic group selected from the group consisting of:

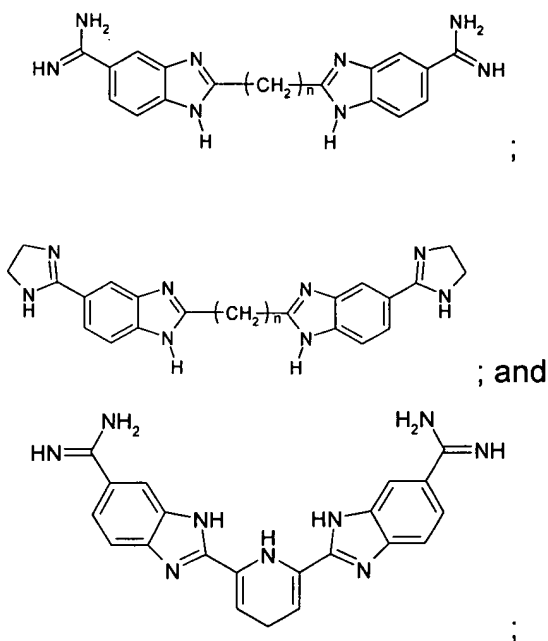


wherein

R_6 , R_7 , and R_8 are each independently selected from the group consisting of H, loweralkyl, halogen, oxyalkyl, oxyaryl, or oxyarylalkyl;

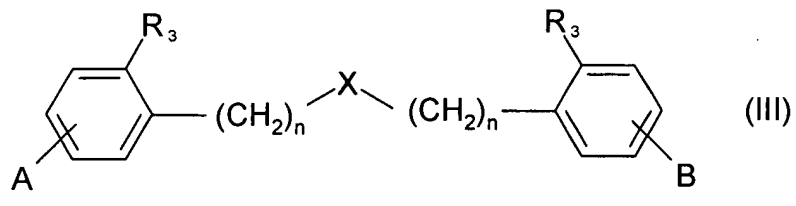
R_9 is hydrogen, loweralkyl, hydroxy, aminoalkyl, or alkylaminoalkyl;
or a pharmaceutically acceptable salt thereof.

37. (new) The method of Claim 36, wherein the amidine comprises a compound selected from the group consisting of:



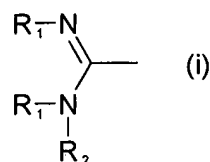
wherein n is an integer from 1 to 12;
or a pharmaceutically acceptable salt thereof.

38. (new) The method of Claim 33, wherein the amidine comprises a compound of formula (III):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):

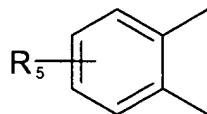


subject to the proviso that at least one of A and B is a compound of formula (i);

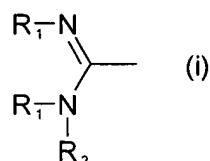
R_1 and R_2 are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl and alkylaminoalkyl;

or two R_1 groups on the same compound of formula (i) together represent $-(CH_2)_m-$ wherein m is 2, 3, or 4;

or two R_1 groups on the same compound of formula (i) together represent



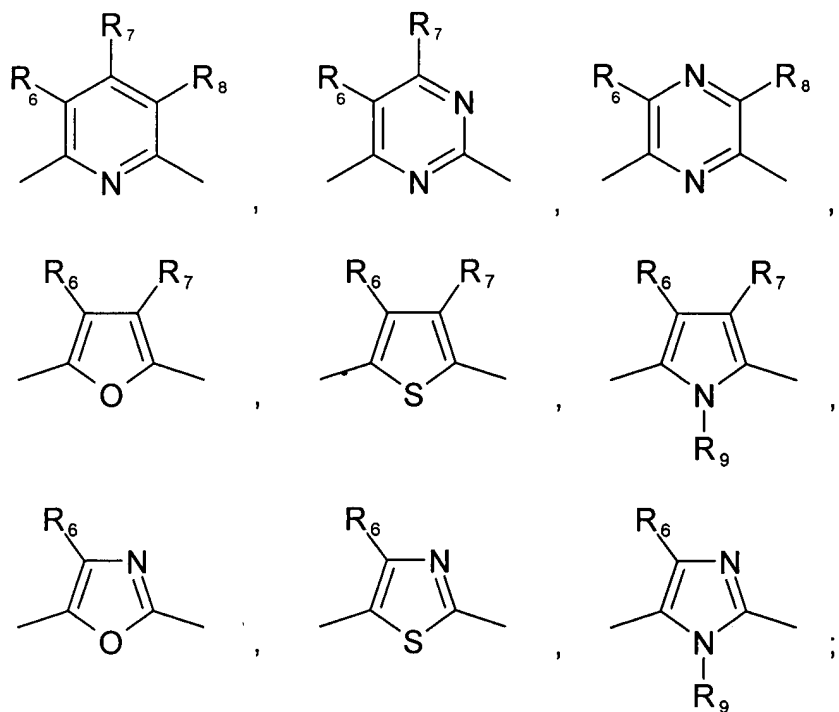
wherein R_5 is



R_3 is H, loweralkyl, oxyalkyl, alkoxyalkyl, hydroxyalkyl, cycloalkyl, aryl, aminoalkyl, alkylaminoalkyl, or halogen;

n is an integer from 0 to 2; and

X is CH_2O or a heterocyclic aromatic group selected from the group consisting of:

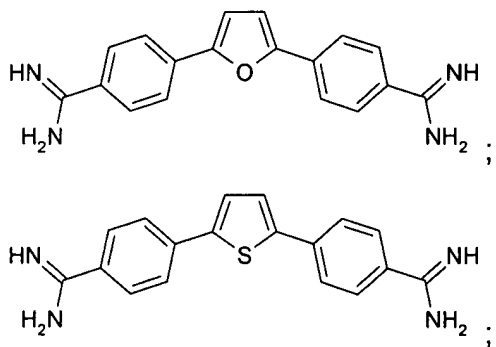


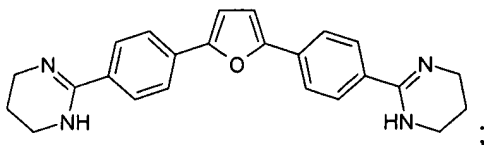
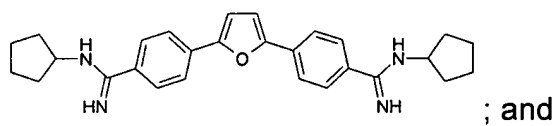
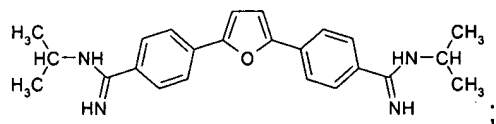
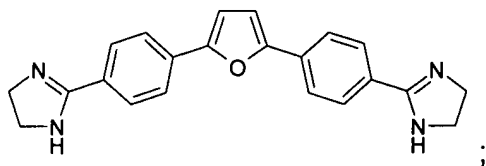
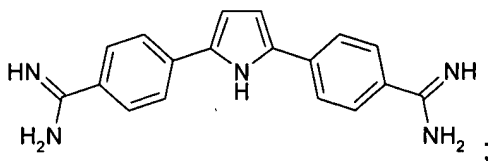
wherein:

R₆, R₇, and R₈ are each independently selected from the group consisting of H, loweralkyl, halogen, oxyalkyl, oxyaryl, or oxyarylalkyl;

R₉ is hydrogen, loweralkyl, hydroxy, aminoalkyl, or alkylaminoalkyl;
or a pharmaceutically acceptable salt thereof.

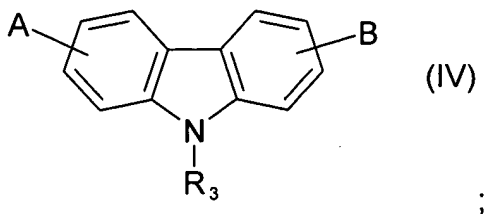
39. (new) The method of Claim 38 wherein the amidine comprises a compound selected from the group consisting of:





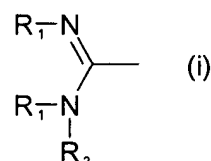
or a pharmaceutically acceptable salt thereof.

40. (new) The method of Claim 33, wherein the amidine comprises a compound of formula (IV):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):

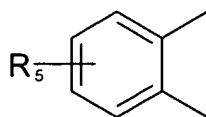


subject to the proviso that at least one of A and B is a compound of formula (i);

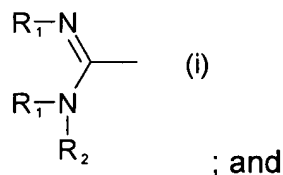
R_1 and R_2 are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl;

or two R_1 groups on the same compound of formula (i) together represent $-(CH_2)_m-$ wherein m is 2, 3, or 4;

or two R_1 groups on the same compound of formula (i) together represent

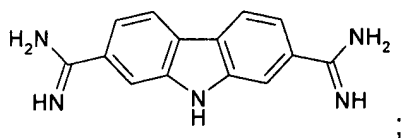
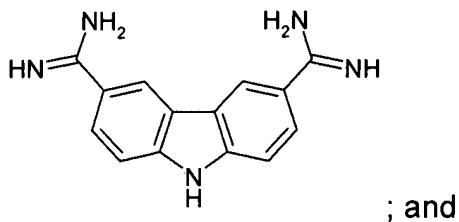


wherein R_5 is



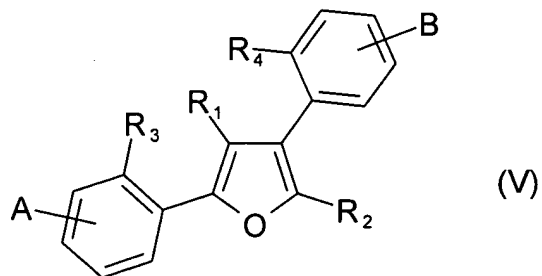
R_3 is H, loweralkyl, oxyalkyl, alkoxyalkyl, hydroxyalkyl, cycloalkyl, aryl, aminoalkyl, alkylaminoalkyl, or halogen;
or a pharmaceutically acceptable salt thereof.

40. (new) The method of Claim 39 wherein the amidine comprises a compound selected from the group consisting of:



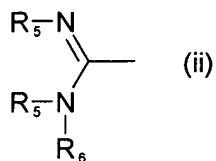
or a pharmaceutically acceptable salt thereof.

41. (new) The method of Claim 33, wherein the amidine comprises a compound of formula (V):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (ii):



subject to the proviso that at least one of A and B is a compound of formula (ii);

R₁ and R₂ are each independently selected from the group consisting of H, loweralkyl, aryl, alkylaryl, aminoaryl, halogen, oxyalkyl, oxyaryl, or oxyarylalkyl;

R_3 and R_4 are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkylaryl, aryl, oxyaryl, aminoalkyl, aminoaryl, or halogen;

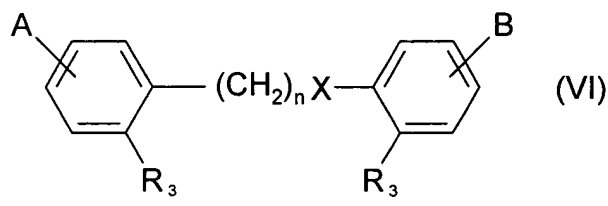
each R_5 is independently selected from the group consisting of H, loweralkyl, alkoxyalkyl, hydroxyalkyl, aminoalkyl, alkylaminoalkyl, cycloalkyl, aryl, or alkylaryl;

or two R_5 groups together represent C_2 to C_{10} alkyl, hydroxyalkyl, or alkylene; and

R_6 is H, hydroxy, loweralkyl, alkoxyalkyl, hydroxyalkyl, aminoalkyl, alkylamino, alkylaminoalkyl, cycloalkyl, hydroxycycloalkyl, alkoxycycloalkyl, aryl, and alkylaryl;

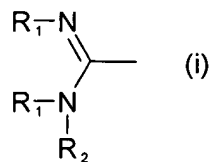
or a pharmaceutically acceptable salt thereof.

42. (new) The method of Claim 33, wherein the amidine comprises a compound of formula (VI):



wherein:

A and B are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, nitro, amino, aminoalkyl, halo, hydroxy, carboxy, and compounds of formula (i):



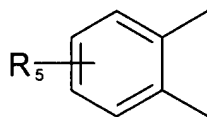
subject to the proviso that at least one of A and B is a compound of formula (i);

R_1 and R_2 are each independently selected from the group consisting of H, loweralkyl, oxyalkyl, alkoxyalkyl, cycloalkyl, aryl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl;

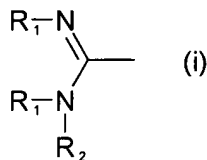
or two R_1 groups on the same compound of formula (i) together represent $-(CH_2)_m-$ wherein m is 2, 3, or 4;

R_3 is H, loweralkyl, oxyalkyl, alkoxyalkyl, hydroxyalkyl, cycloalkyl, aryl, aminoalkyl, alkylaminoalkyl, or halogen;

or two R_1 groups on the same compound of formula (i) together represent



wherein R_5 is

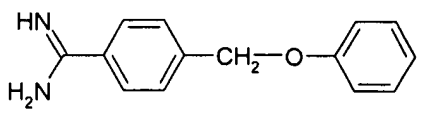
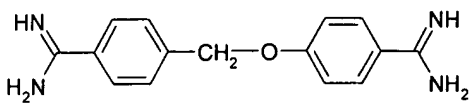


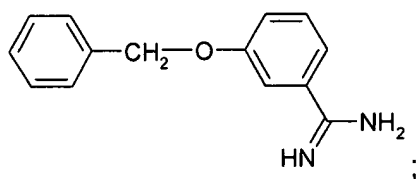
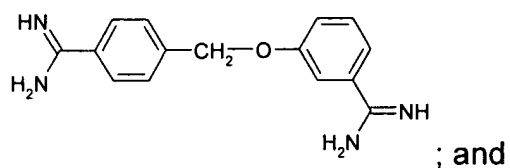
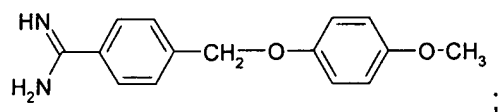
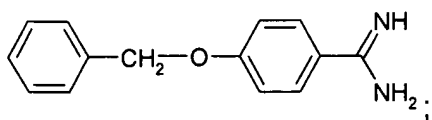
X is O, S, or NH;

n is an integer from 1 to 8;

or a pharmaceutically acceptable salt thereof.

44. (new) The method of Claim 43, wherein the amidine comprises a compound selected from the group consisting of:

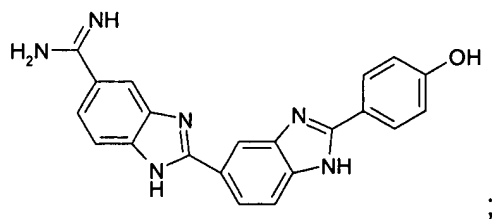




or a pharmaceutically acceptable salt thereof.

45. (new) The method of Claim 33 wherein the amidine comprises a bis-benzamidine.

46. (new) The method of Claim 33 wherein the amidine comprises a compound having the following structure:



or a pharmaceutically acceptable salt thereof.

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47. (new) The method of Claim 33, wherein the subject is afflicted with diabetes.

48. (new) The method of Claim 33, wherein the subject is at risk of developing diabetes, the treatment is a prophylactic treatment, and the amidine compound is administered in a prophylactically effective amount.